

Louisville Metro Air Pollution Control District 701 West Ormsby Avenue, Suite 303 Louisville, Kentucky 40203-3137



May 19, 2020

Federally Enforceable District Origin Operating Permit (FEDOOP) Statement of Basis

Source:	Algood Food Company	Owner:	Algood Food Company
	7401 Trade Port Drive		7401 Trade Port Drive
	Louisville, KY 40258		Louisville, KY 40258

Application Documents: See Table I-9 Administratively Complete: February 4, 2020

Draft Permit: April 17, 2020 Proposed Permit: April 17, 2020

Permitting Engineer: Shannon Hosey Permit Number: O-1465-20-F

Plant ID: 1440 SIC: 2099 NAICS: 311911

Introduction:

Permit Application Type:

This permit will be issued pursuant to District Regulation 2.17- Federally Enforceable District Origin Operating Permits. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

This permit action renews the FEDOOP operating permit.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO₂), carbon monoxide (CO), particulate matter less than 10 microns (PM₁₀), and particulate matter less than 2.5 microns (PM_{2.5}). Jefferson County is classified as a nonattainment area for ozone (O₃). This facility is located in the portion of Jefferson County that is an attainment area for sulfur dioxide (SO₂).

Initial issuance Permit Revision Permit renewal \boxtimes Administrative Minor Significant **Compliance Summary:** XCompliance certification signed Compliance schedule included Source is out of compliance Source is operating in compliance \boxtimes

I Source Information

1. Product Description:

Algood Food Company manufactures peanut butter.

2. Process Description:

The facility manufactures peanut butter from pre-shelled peanuts. The plant has 2 lines of peanut sorting, roasting, and skinning (called blanching). Peanuts are then blended to form peanut butter. Additives are conveyed pneumatically and combined with product. Various sanitizing procedures are taken, and individual jars are stamped with a date by an inkjet printing process.

3. Site Determination:

There are no other facilities that are contiguous or adjacent to this facility.

4. Emission Unit Summary:

Emission Unit	Equipment Description
U1	One (1) Laser Sorter, BEST USA, Inc., Helius 1200 One (1) Laser Sorter, BEST USA, Inc., Nimbus 1200 Two (2) Optical Sorters, Satake EVO RGB8 One (1) Roaster, Proctor & Schwartz, with a wet scrubber followed by inline cartridge One (1) Roaster, Wolverine Proctor, with a cooling and heating zone scrubber followed by in-line cartridge Two (2) Blanchers, LMC 360
U2	Inkjet printing operation for marking cases of products. One (1) Biomist Power Sanitizing System used to sanitize food contact surfaces with alcohol based sanitizer.
UIA1	Natural Gas (RICE) Emergency Generator, Kohler, 350 HP

5. Fugitive Sources:

Infrequent plugging of the removal of waste peanut skins which are conveyed pneumatically to a semi-tractor trailer.

6. Permit Revisions:

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
182-02-F	12/04/2005	03/31/2006	Initial	Initial Permit Issuance
O-1440-15-F	02/18/2015	04/07/2015	Renewal	Permit Renewal

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
O-1440-20-F	04/17/2020	05/19/2020	Renewal	Permit Renewal and Incorporating Construction Permit C-1440-1003-15-F

7. Application and Related Documents

Document Handle	Date	Description
79600	09/26/2016	AP-100A Application to incorporate construction permit into operating permit O-1440-15-F
129776	01/29/2020	Permit Renewal Application
130260	02/04/2020	Permit Application Completeness Letter

8. Emission Summary

Pollutant	District Calculated Potential (tpy) (2019)	Pollutant that triggered Major Source Status (based on PTE)
СО	0	No
NO_x	0	No
SO_2	0	No
PM_{10}	752.73	Yes
VOC	33.03	No
Total HAPs	0.02	No
Single HAP > 1 tpy	-	_

9. Applicable Requirements

\boxtimes	40 CFR 60	\boxtimes	SIP	\boxtimes	40 CFR 63
	40 CFR 61	\boxtimes	District Origin		Other

10. Referenced Federal Regulations:

40 CFR 63 Subpart ZZZZ – Standards of Performance for New Volatile Organic Materials Loading Facilities

 $40\ CFR\ 60\ Subpart\ JJJJ-Standards$ of Performance for Stationary Spark Ignition Internal Combustion Engines

11. Non-Applicable Regulations: NA

II Regulatory Analysis

1. Stratospheric Ozone Protection Requirements:

Title VI of the CAAA regulates ozone depleting substances and requires a phaseout of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. River Metal Recycling does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

2. Prevention of Accidental Releases 112(r):

The source does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

3. Basis of Regulation Applicability

a. Applicable Regulations

Regulation	Title	Basis
2.17	Federally Enforceable Distric	et Origin Operating Permits
7.08	Standards of Performance for New Process Operations	Regulation 7.08 establishes emission standards for processes that emit PM which were constructed after September 1, 1976.
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	Regulation 7.25 establishes requirements for VOC for equipment installed after June 13, 1979.
40 CFR 63 Subpart ZZZZ	Standards of Performance for New Volatile Organic Materials Loading Facilities	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines

b. Plantwide

Algood Food Company is potentially major for PM₁₀. Regulation 2.17 – Federally Enforceable District Origin Operating Permits establishes requirements to limit the plant wide potential emission rates to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements. The source requested a limit of the criteria pollutant PM/PM₁₀/PM₁₀ < 25 ton/yr to be a FEDOOP STAR Exempt source as defined by Regulation 5.00, section 1.13.5. Also, the company needs a < 25 tpy limit on VOC since the potential is over 25 tpy.

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establish requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. Algood Food Company took a total plantwide limit of 25 tpy for criteria pollutants to be a FEDOOP source exempt from STAR.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued to submit an Annual Compliance Certification by April 15, of the following calendar year. In addition, as required by Regulation 2.17, section 5.2, the source shall submit Semi-Annual Compliance Reports to show compliance with the permit. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5.

c. Emission Unit U1 – Sorting, Roasting, Blanching

EP	Description	Applicable Regulations	Control ID
E1	Laser Sorter, BEST USA, Inc., Helius 1200	7.08	C1
E2	Peanut Roaster, Proctor & Schwartz, K910124	7.08	C2
E3	Peanut Blancher, LMC 360	7.08	C4
E4	Optical Sorter, Satake EVO RGB 8	7.08	C4
E5	Laser Sorter, BEST USA, Inc., Nimbus 1200	7.08	C1
E6	Peanut Roaster, Wolverine Proctor P500012	7.08	СЗ
E7	Peanut Blancher, LMC 360	7.08	C5
E8	Optical Sorter, Satake EVO RGB8	7.08	C5

Control ID	Description	Control Efficiency
C1	Cyclone	85%
C21	Wet scrubber using water followed by in-line cartridge	95%
C3 ¹	Hot and cold zoned wet scrubber (GCH) followed by in- line cartridge	95%
C4	Cyclone	85%
C5	Cyclone (Fisher-Klosterman)	85%

i. Standards and Operation Limits

(1) **Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%.

(2) **PM**

(a) The emission standard for PM for the equipment in the emission unit was determined in accordance with Regulation 7.08, section 3.1.2 as follows:

PM lb/hr limit = $3.59 \times (process weight, tons/hr)^{0.62}$

(b) For Emission Points E1, E3, E4, E5, E7, and E8, the controlled emissions meet the standard. Therefore, the operation of control devices (C1, C4, and C5) is required.

d. Emission Unit U2: Printers and Sanitizing System

EP	Description	Applicable Regulations
E9	Hitachi Code, PXR-D460W, Date Printer	7.25
E10	Fox Jet, FXJT-62701208, Tray Printer	7.25
E11	Biomist Inc. Sanitizing System	7.25

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¹ Roaster exhaust will pass through the scrubber which sprays a mist into air trapping contaminants. Air/water then passes through a series of filters that trap all contaminants in the airstream.

i. Standards and Operation Limits

VOC

Regulation 7.25 establishes a plantwide VOC limit of 5 tons per year for all affected facilities, unless Best Available Control Technology (BACT) level of control is utilized to reduce the VOC emissions.

e. Emission Unit UIA1: Emergency Generator

EP	Description	Applicable Regulations
IA1	Natural Gas (RICE) Emergency Generator, Kohler, 350 HP	40 CFR 63 Subpart ZZZZ and 40 CFR 60
	,	Subpart JJJJ

i. Standards and Operation Limits

VOC

New emergency generators are subject to 40 CFR 63 Subpart ZZZZ and 40 CFR 60 Subpart JJJJ. This emergency generator must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart JJJJ.

III Other Requirements

1. Temporary Sources:

The source did not request to operate any temporary facilities.

2. Short Term Activities:

The source did not report any short term activities.

3. Emissions Trading:

The source is not subject to emission trading.

4. Alternative Operating Scenarios:

The source did not request any alternative operating scenarios.

5. Compliance History:

There are no records of any violations of the terms of the present or prior construction or operating permits.

6. Calculation Methodology or Other Approved Method:

Generally, emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc.) or hours of operation of the equipment by the appropriate emission factor and accounting for any control devices unless otherwise approved in writing by the District.

Table 1 – U1, Sorting, Roasting, Blanching

Emission Point	Description	Emission Factor/Calculation Methodology	
E1, E5	Laser Sorters, Unloading	AP-42, Chapter 9, Table 9.10.2.1-1 Assume all PM = $PM_{10} = PM_{2.5} = 0.06$ lb/ton	
	Laser Sorters, Screening	AP-42, Chapter 9, Table 9.10.2.1-1 PM = 0.40 lb/ton (controlled) PM ₁₀ = PM _{2.5} = 0.31 lb/ton (controlled)	
E2, E6	Peanut Roasters	AP-42, Chapter 9, Table 9.13.2-1 (coffee roasting EF) Assume all PM = $PM_{10} = PM_{2.5} = 0.66 \text{ lb/ton}$	
E3, E7	Peanut Blanchers, Peanut/ Ingredients Transfer	AP-42, Chapter 9, Table 9.9.1-1 (grain receiving EF) PM = 0.18 lb/ton PM ₁₀ = 0.059 lb/ton PM _{2.5} = 0.01 lb/ton	
E4, E8	Optical Sorters, Skins Systems	AP42, Chapter 9, Table 9.10.2.1-1 (hulling/separating EF) PM = 1.1 lb/ton (controlled) PM ₁₀ = PM _{2.5} = 0.81 lb/ton (controlled)	

Table 2 – U2, Printers and Sanitizing System

Emission Point	Description	Emission Factor/ Calculation Methodology
E9	Hitachi Code, PXR-D460W, Date Printer	Material Balance
E10	Fox Jet, FXJT-62701208, Tray Printer	Material Balance
E11	Biomist Inc. Sanitizing System	Material Balance

Table 3 – UIA1, Emergency Generator

Emission Point	Description	Emission Factor/ Calculation Methodology
IA1	Natural Gas (RICE) Emergency Generator, Kohler, 350 HP	AP-42 Chapter 3.3

7. Insignificant Activities:

Equipment	Qty.	PTE (ton/yr)	Regulation Basis
Natural Gas Hot Water Heaters 0.589 MMBtu 0.335 MMBtu 0.399 MMBtu 0.1999 MMBtu 0.19 MMBtu	5	NO _x = 0.74	Regulation 1.02, Appendix A, Section 1.1
Cooling Tower	1	PM ₁₀ =0.07	Regulation 1.02, Appendix A, Section 1.38
Emergency relief vents, stacks and ventilation systems	3	NA	Regulation 1.02, Appendix A, Section 3.10
Pneumatic vacuum transfer systems	7	NA ²	Regulation 1.02, Section 1.38.1.1
Dust or particulate collectors that are located in-doors, vent directly indoors into the work space, collect no more than one ton of material per year and do not collect materials listed in Regulation 5.11, 5.12 or 5.14 (Two Jar Washers that blow particulate matter out from the jars and capture it in a filter box)	2	PM ₁₀ < 1	Regulation 1.02, Appendix A, Section 3.21

- 1. Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
- 2. Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.
- 3. The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.
- 4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
- 5. The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.
- 6. The District has determined that no monitoring, recordkeeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

² Emissions are accounted for in the process.